

LV-EMITM System

A compact, field-ready system, designed to overcome inspection challenges and expedite return to well production.



THE LV-EMI™ SYSTEM IS EASILY DEPLOYED ON-SITE IN A DURABLE, PORTABLE CASE.

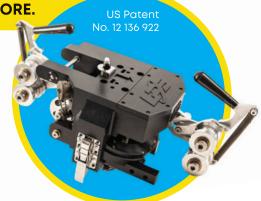
- Small, Compact, Portable System
- **3** Low Voltage Lv-SmartMod™
- System Can Be Installed and Removed in Less Than 5 Minutes
- No Delay to Well-Servicing Operations
- Precise, Accurate, Repeatable

- Proprietary Custom Lv-Zephyr™ Software Developed Exclusively for Scanning Rods and Tubing
- Sensors Can Be Easily Changed On the Fly for Different **Rod Sizes**
- Intelligent Sensor Calibration to Ensure Lv-SmartMod™ and Lv-Zephyr™ Software Are Properly Tuned
- Built-in AI for Failure Identification and Reporting

ELECTROMAGNETIC INSPECTION LIKE YOU HAVEN'T SEEN IT BEFORE.

Challenges to Rod Inspection

Continuous rod inspection was previously reliant on manual visual checks by experienced personnel. These inspections are prone to human error and often fail to provide a complete 360° view of the rod, risking undetected defects and costly premature failures. By adopting EMI, operators can avoid scrapping serviceable rods unnecessarily, reducing work-over costs and improving operational efficiency.



LPS Compact, Field-Ready Lv-EMI™ System

The Lv-EMI™ System is revolutionizing well production by addressing inspection challenges with cutting-edge electromagnetic testing. This non-destructive method uses advanced magnetic flux leakage (MFL) and magnetic flux density (MFD) measurements to provide a comprehensive assessment of continuous rod health.

The Lv-SmartMod™ easily fits between the last guide arm and the rod spool. Rubber strippers eliminate excess oil and paraffin, while a depth counter pinpoints defect locations in the rod string. The Lv-DAQ™ sends signals to the Lv-Zephyr™ software to quickly interpret signals from the EMI unit, triggering inspector action when defects are detected to aid in generating an inspection report and expedite return to well production.



Lv-EMI™ System





Lv-SmartMod™

Easily fits between the last guide arm and the rod spool. With quick installation and removal, it ensures seamless operation. Rubber strippers eliminate excess oil and paraffin, while depth counters pinpoint defect locations in the rod string.

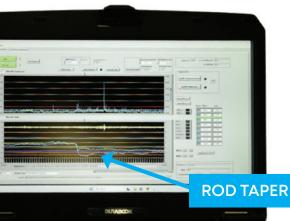
Lv-DAQ™

Compact and low-power Lv-DAQ $^{\text{TM}}$ sends signals from the Lv-SmartMod $^{\text{TM}}$ unit to the Lv-Zephyr $^{\text{TM}}$ software.



Lv-SmartMod™ Adapter and Cable

The system has everything you need to run the rod, including the Lv-SmartMod™ Adapter and Cable. Other auxiliary equipment is comprised of the the Lv-Sensor Set and Lv-Calibration Coupons.



Lv-Zephyr™ Software

The system includes a Lv-Laptop, a robust Durabook Laptop with annual software licenses. The Lv-Zephyr™ Software package interprets signals from the EMI unit to trigger inspector actions when defects are detected, simplifying previous processes and making it easier to identify issues or expedite the return to well production.

ABOUT LIGHTNING PRODUCTION SERVICES

LPS is a leading full-service manufacturing company focused on increasing efficiency and run times in deep deviated rod pumped wells. Our proven Hi-Rise System™ includes continuous rod, lined tubing, engineering services, well servicing, and proprietary EMI services. Specializing in holes in tubing and rod parts due to deviation, high-rate ESP conversions, and improved recovery, our rigorous manufacturing standards ensure

